

REMARKS

This amendment responds to the Final Office Action dated February 25, 2009.

The Examiner has allowed claims 20 and 22 and indicated that claims 6 and 16 would be allowable if rewritten in independent form

The Examiner objected to the specification as failing to provide a basis for the claim term “residual image.” The Examiner objected to claims 1-19 and 23 on similar grounds. The applicant has amended the claims to refer to a “threshold operation” that produces a “flash mask.” Both of these terms are amply described in the specification at pages 3-6. The applicant therefore respectfully requests that these objections be withdrawn.

The Examiner rejected claims 12 and 14 under 35 U.S.C. § 102(b) as being anticipated by Benati et al., U.S. Patent No. 5,748,764. The Examiner rejected claims 1-5, 7-11, 13, 15, 17, and 23 under 35 U.S.C. § 103(a) as being unpatentable over Benati in view of Koga et al., U.S. Patent No. 5,848,185. The Examiner rejected claim 18 under 35 U.S.C. § 103(a) as being obvious over Benati in view of Liang et al., U.S. Patent No. 6,678,413. The Examiner rejected claim 19 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Benati in view of Liang et al in view of Luo et al., U.S. Patent No. 7,035,461.

Benati, the primary reference used in all of the Examiner’s rejections, discloses the identification of red-eye regions in a single step by identifying those pixels of an image that contain the typical color of red eye. This color is expressed as respective ranges of intensity values in each of the luminance, hue, and saturation channels of the image, and the step by which the characteristic red-eye color is identified simply involves searching for pixels having intensity values within those ranges. The Examiner’s rejection is premised on the assertion that this identification step of Benati can be performed in three different stages, i.e. first looking for pixels within the range described for one channel, then proceeding to the next channel, etc. The Examiner does indicate which of these steps corresponds to the applicant’s claimed threshold operation to identify flash regions of an image, but the applicant will presume that it is the luminance channel step of Benati.

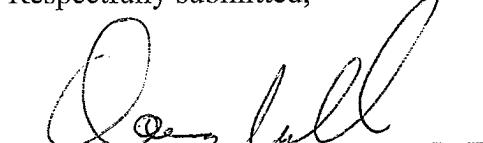
The flaw in the Examiner's reasoning is that each of the threshold ranges of Benati are not calculated to identify which regions of an image are affected by a flash, but are calculated to specifically identify the color red that results when a person's eye is affected by a flash. The distinction is subtle, but important. The threshold operations of Benati will not identify any region of an image that is potentially affected by a flash, unless its post-flash hue, saturation, and luminance happens to be the proper color, which other than an eye, is unlikely. The converse is also true; portions of the image that are not affected by a flash may be included if they coincidentally happen to have the same hue, saturation, and luminance of red-eye. Thus, the applicant respectfully disagrees that the claimed limitations are disclosed by Benati.

Nonetheless the applicant has amended each of claims 1, 7, 12, and 23 to recite the limitation of a "flash mask characterized by the inclusion of those regions of said multi-channel image potentially affected by a flash, and the exclusion of those regions of said image not potentially affected by a flash, irrespective of whether an included or excluded region is within the boundaries of a person's face." This limitation distinguishes over Benati for two reasons. First, as noted above, Benati's threshold operation includes threshold ranges that will not identify regions of an image that are affected by a flash, but do not have the characteristic red-eye color. Second, the threshold ranges of Benati are specifically calculated to identify the color of red-eye, which is by definition, within the boundaries of a person's face.

For each of these reasons, the applicant respectfully requests that the Examiner's respective rejections of claims 1-5, 7-15, 17-19 and 23 be withdrawn.

In view of the foregoing amendments and remarks, the applicant respectfully requests reconsideration and allowance of claims 1-20, 22 and 23.

Respectfully submitted,



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